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**Cosmetic and/or dermatopharmaceutical composition containing extracts obtained from the leaves of *Argania spinosa***

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***Abstract of EP 1213025 (A1)***

***Cosmetic and/or dermatological preparations (A) contain extracts (I) of the leaves of the plant Argania spinosa (a type of olive tree mainly found in Morocco) as care agents for the skin and hair. An Independent claim is included for the use of (I) as care agents for the skin and hair.***

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***DESCRIPTION***

***Field of the Invention***

***[0001] The invention is in the field of nursing relates to preparations containing substances and extracts from the***

***leaves of the plant Argania spinosa and use of extracts from the leaves of the plant Argania spinosa as a new skin and hair care products.***

## ***State of the art***

***[0002] Cosmetic preparations are available to consumers today in a variety of combinations .It is not only expected that these cosmetics to a particular care effect or to eliminate a certain lack, but increasingly demanding products that have multiple properties and thus show an improved performance spectrum. Of particular interest are substances that are both active ingredients present, the skin and / or hair, for example, care, teach before aging protective and revitalizing properties and also the technical characteristics of the cosmetic product, such as storage stability, light stability and formulation properties have a positive or at least do not .In addition, consumers have good skin compatibility and especially the use of natural products are in demand by the customer. There is desirable to obtain by combining already existing drugs, or by discovering new applications for already-known classes of compounds significantly better products. A disadvantage here, however, is often that a combination of drugs is only obtained when different plant extracts are used simultaneously in different ratios.***

***[0003] extracts of plants and their ingredients are increasingly used in cosmetics and pharmaceuticals. Plant extracts have been used for many years in diverse cultures for medical but also for cosmetic purposes .Often, these plant extracts were only very specific individual effects are known and limited their scope of application.***

## ***Description of the Invention***

***[0004] The object of the present patent application has been to cosmetic and / or to dermo-pharmaceutical preparations which allow the use in cosmetics or pharmaceuticals, and in addition to nourishing properties, especially improved protective properties for human skin and / or hair have, for example to UV radiation and other environmental influences, while preventive and curative Effect of aging on the skin show, can affect melanogenesis and anti-inflammatory are used.***

***[0005] Another object of the present patent application has been to provide preparations which contain the active ingredients from renewable resources and versatile at the same time as a care agent in cosmetics in the skin cosmetics, as used in hair care.***

***[0006] The invention relates to preparations containing extracts from the leaves of the plant contain Argania spinosa as care agents for skin and hair.***

***[0007] Surprisingly it was found that the use of extracts from the leaves of the plant Argania spinosa products are obtained, the same good nourishing and protective properties for skin and hair show, and have a high skin tolerance. The so obtained are distinguished by particularly good effects in skin cosmetics. They show protective effects in addition to a preventive and curative effects of aging on the skin. They affect melanogenesis and show an anti-inflammatory and antimicrobial activity.***

***Make [0008] These multiple applications of the novel agent from the renewable raw material of the plant Argania spinosa it for the market and very attractive to the consumer. The complex object of the invention could thus be solved by the use of extracts from the leaves of the plant Argania spinosa.***

***[0009] The term preparations in the invention is used interchangeably with the term means or cleaning agents.***

## ***Argania spinosa***

***[0010] The invention will be employed according to extracts from the leaves of a plant of the family Sapotaceae, derived specifically from Argania spinosa. This plant is a reminiscent of the olive tree, which is mainly found in Morocco on the west side of the Atlas Mountains. He is at his gnarled branches and spiny branches of berries the size and shape of olives with one or two seeds. The nutty-tasting oil from the seeds is used among other things as an edible oil.***

### ***Extraction***

***[0011] The preparation of extracts to be used according to the invention are prepared by conventional methods of extraction of the leaves of plants. Regarding the suitable conventional extraction methods such as maceration, the remaceration, digestion, agitation, the vortex extraction, ultrasonic extraction, countercurrent extraction, percolation, repercolation, evacolation (extraction under reduced pressure), diacolation and solid-liquid extraction under continuous reflux , which is performed in a Soxhlet extractor, those skilled in the art and all are applicable in principle, be an example to Hager's Handbook of Pharenazeutischen practice (5th ed, vol 2, pp 1026-1030, Springer Verlag, Berlin-Heidelberg-New York 1991) refers. The starting material can fresh or dried leaves of the plant are used, but is usually assumed that leaves of plants that can be mechanically comminuted prior to extraction. Here are all known in the art grinding methods, as an example, the shredding blade called a contained unit.***

***[0012] Suitable solvents for the extraction process may be aqueous, preferably organic solvents, water or mixtures of organic solvents and water, particularly low molecular weight alcohols, esters, ethers, ketones or halogenated hydrocarbons with more or less high levels of water (distilled or deionized)***

***preferably , alcoholic solutions are used with more or less high water contents. Particularly preferably, the extraction with water, methanol, ethanol, propanol, butanol and their isomers, acetone, propylene, polyethylene, ethyl acetate, dichloromethane, trichloromethane, and mixtures thereof. The Extraktion is usually at 20 to 100 ° C., preferably 80 to 100 ° C., especially at the boiling point of the solvents or solvent mixtures. In one possible embodiment, the extraction takes place under inert atmosphere to prevent oxidation of the ingredients of the extract. The extraction times are selected by skilled person depending on the source material, the extraction process, the extraction temperature, the ratio of solvent to raw material, etc.. After extraction, the crude extracts obtained optionally other usual steps such as purification, concentration and / or discoloration are subjected. If desired, the extracts thus prepared may for example, selective removal of individual unwanted ingredients are subjected. The extraction can be carried out to any desired degree of extraction, but is usually performed to exhaustion.***

***[0013] The present invention includes the observation that the extraction conditions and the yields of the final can be chosen depending on the desired application.***

***[0014] The amount of plant extracts used in these preparations depends on the concentration of the individual ingredients and the manner in which the extracts. The total quantity of plant extract, which is included in the inventive preparations, is usually 0.01 to 25 wt -%, preferably 0.03 to 5 wt -%, particularly 0.03 to 0.6 weight -% calculated as dry weight, based on the preparations, with the proviso that the quantities of water and optionally other auxiliaries and additives to make 100 weight - add%.***

***[0015] The total amount of auxiliaries and additives may be 1 to 50, preferably 5 to 40-% - Based on the cosmetic and / or dermatopharmaceutical preparations - be. The preparations may be prepared by customary cold - or hot processes and are preferably produced by the phase inversion temperature method.***

***[0016] Active substance according to the invention refers to the percentage of substances and auxiliaries and additives which***

***are present in the preparation, with the exception of the additional water added.***

## ***Extracts***

***[0017] The inventive extracts from the leaves of the plant Argania spinosa usually contain flavone derivatives as active ingredients. These are each composed according to the starting material and the chosen extraction method. One particular embodiment of the invention relates to cosmetic and / or dermo-pharmaceutical preparations containing extracts from the leaves of Argania spinosa included containing flavone.***

***[0018] In the context of the present invention are to be understood by flavone derivatives, those which can be isolated from the leaves of the plant Argania spinosa. In particular, there are substances that hydrogenation, oxidation or substitution products of 2-phenyl-4H-1-benzopyran; one hydrogenation, the 2,3-position of the carbon skeleton is already available, oxidation in the 4 - position may exist, and substitutes the replacement is to understand one or more hydrogen atoms by hydroxyl or methoxy groups With this definition, flavans, flavan-3-ols (catechins) are flavan-3 ,4-diols (leucoanthocyanidines), including flavones, flavonols and flavanones in the conventional sense. In a particular embodiment of the invention is glycosidated flavone, in particular Myricetinglycosid, Quercetinglycosid, Gossypetinglycosid, and Kämpferolglycosid Luteolinglycosid.***

***[0019] Another object of the invention is the use of extracts from the leaves of the plant Argania spinosa as care for the skin and / or the hair. This usage includes both cosmetic as well as agents with dermopharmaceutical effect.***

***Cleaning products:***

***[0020] As a care product for the purposes of the invention are hair care products for skin and understand. These care agents include, among others, cleansing and regenerating effect on skin and hair.***

***[0021] It can be applied both topically and orally in the form of tablets, dragees, capsules, syrups, solutions and granules.***

***[0022] The inventive compositions also exhibit an excellent skin care effect with high skin tolerance. They also have good stability, especially against oxidative decomposition of the products. The preparations have a variety of cosmetic and dermatopharmaceutical effects. Other objects of the invention relate to the use of extracts from the leaves of the plant Argania spinosa***

#### ***EMI4.1***

***as sunscreen, especially against UVA radiation and / or UVB radiation;***

#### ***EMI4.2***

***Antioxidant;***

#### ***EMI4.3***

***as anti-inflammatory agents***

#### ***EMI4.4***

***as anti-microbial agents***



#### **EMI4.5**

***as a remedy for skin aging***

#### **EMI5.1**

***as protease-inhibiting agent, particularly as collagenase and / or elastase-inhibiting agent;***

#### **EMI5.2**

***as a pigmenting agent.***

#### ***Sunscreen or UV light protection factors***

***[0023] The extracts from the leaves of the plant *Argania spinosa* work in the spirit of the invention as a sunscreen.***

***[0024] As a sunscreen and UV protection factors in the context of the invention are known light stabilizers that are useful for protecting human skin against harmful effects of direct and indirect solar radiation. The person responsible for skin tanning ultraviolet radiation from the sun can be divided into the sections of UV-C (wavelength 200-280 nm), UVB (280-315 nm) and UVA (315-400 nm).***

***[0025] The pigmentation of normal skin under the influence of solar radiation, i.e. the formation of melanin, is effected differently by UV-B and UV-A. Irradiation with UV-A rays ("long-wave UV"), the darkening of existing melanin in the epidermis-body result, without the damaging effects are seen. Unlike in the so-called "short-wave ultraviolet" (UV-B). This causes the***

***formation of so-called late formation of melanin pigment by grains. However, before the (protective) pigment is formed, the skin is exposure to the unfiltered radiation - can lead to the formation of skin redness (erythema), skin inflammation (sunburn) and even blisters - depending on the exposure time.***

***[0026] Suitable UV absorbers or light filters, which then convert the UV radiation into harmless heat, are used extracts from the leaves of the plant Argania spinosa, this may also be present in combination with other sunscreens or UV light protection factors.***

***[0027] These further UV light protection factors, for example, are liquid at room temperature or crystalline organic substances (light filters) which are capable of absorbing ultraviolet rays and the energy absorbed in the form of longer wavelength radiation, e.g. heat when required. UVB filters can be oil-soluble or water soluble. Oil-soluble substances are examples:***

### ***EMI5.3***

***3-benzylidene camphor or 3-benzylidenenorcamphor and its derivatives, e.g. 3 - (4-methyl-benzylidene) camphor as described in EP 0693471 B1;***

### ***EMI5.4***

***4-aminobenzoic acid derivatives, preferably 4 - (dimethylamino) benzoic acid-2-ethylhexyl 4 - (dimethylamino) benzoic acid-2-octyl ester and 4 - (dimethylamino) benzoate;***

### ***EMI5.5***

***Esters of cinnamic acid, preferably 4-methoxy-2-ethylhexyl 4-methoxycinnamate, isoamyl 4-methoxycinnamate 2-cyano-3,3-phenylcinnamic-2-ethylhexyl ester (Octocrylene);***

***EMI5.6***

***Esters of salicylic acid, preferably salicylic acid-2-ethylhexyl salicylate, 4-isopropylbenzyl salicylate;***

***EMI6.1***

***Derivatives of benzophenone, preferably 2-hydroxy-4-methoxybenzophenone, 2-hydroxy-4-methoxy-4'-methyl benzophenone, 2,2'-dihydroxy-4-methoxybenzophenone;***

***EMI6.2***

***Esters of benzalmalonic, preferably 4-di-2-ethylhexyl;***

***EMI6.3***

***Triazine derivatives such as 2,4,6-trianilino-(p-carbo-2'-ethyl-1'-hexyloxy) -1,3,5-triazine and octyltriazone, as described in EP 0818450 A1 or dioctylbutamidotriazone (HEB Uvasorb TM);***

***EMI6.4***

***Propane-1,3-diones, such as 1 - (4-tert-butylphenyl) -3 - (4'-methoxyphenyl) propane-1,3-dione;***

***EMI6.5***

***Ketotricyclo (5.2.1.0) decane derivatives, as described in EP 0694521 B1.***

***[0028] As water-soluble substances are:***

***EMI6.6***

***2-phenyl benzimidazole-5-sulfonic acid and alkali, alkaline earth, ammonium, alkylammonium, alkanol and glucammonium;***

***EMI6.7***

***Sulfonic acid derivatives of benzophenones, preferably 2-hydroxy-4-methoxybenzophenone-5-sulfonic acid and its salts;***

***EMI6.8***

***Sulfonic acid derivatives of 3-benzylidene camphor, such as 4 - (2-oxo-3-bornylidenemethyl) benzenesulfonic acid and 2-methyl-5-(2-oxo-3-bornylidene) sulfonic acid and salts thereof.***

***[0029] Typical UV-A filters are in particular derivatives of benzoyl methane, such as 1 - (4'-tert-butylphenyl) -3 - (4'-methoxyphenyl) propane-1,3-dione, 4-tert.-Butyl-4'-methoxydibenzoylmethane (Parsol 1789), 1-phenyl-3-(4'-isopropylphenyl)-propane-1,3-dione and the enamine, such as described in DE 19712033 A1 (BASF). The UV-A and UV-B filters may of course be used in mixtures. Besides the soluble substances mentioned, for this purpose, insoluble light protection pigments, namely finely dispersed metal oxides or salts. Examples of suitable metal oxides are in particular zinc***

*oxide and titanium dioxide and also oxides of iron, zirconium, silicon, manganese, aluminum and cerium and mixtures thereof. As salts, silicates (talc), barium sulfate or zinc stearate. The oxides and salts are used in the form of the pigments for skincare and skin-protecting emulsions. The particles should have an average diameter of less than 100 nm, preferably between 5 and 50 nm and especially between 15 and 30 nm. You can have a spherical shape, although it is also possible to use particles which have an ellipsoidal or in some other way from the spherical shape. The pigments can also be surface treated, i.e. hydrophilic or hydrophobic. Typical examples are coated titanium dioxides such as titanium dioxide T 805 (Degussa) or Eusolex TM T2000 (Merck). Suitable hydrophobic coating agents are here primarily silicones and, specifically trialkoxyoctylsilanes or dimethicone in question. In sunscreens, preferably so-called micro-or nano-pigments. Preferably, micronized zinc oxide is used. Further suitable UV filters can be found in P. Finkel 's review in Journal 122, 543 (1996) as well as perfumery and cosmetics 3 (1999), refer to page 11 et seq.*

*[0030] The extracts from the leaves of the plant Argania spinosa work in the spirit of the invention against the degradation of fibroblasts and / or keratinocytes by UVA radiation and / or UVB radiation.*

*[0031] UVA rays penetrate into the dermis, where they cause oxidative stress, which is demonstrated by the cytoplasmic membrane lipoperoxidation. The lipoperoxides become Malonaldehyde (MDA), reduced, will link the many biological molecules such as proteins and nucleic bases (enzyme inhibition or mutagenesis). The inventive extracts of the plant Argania spinosa significantly reduce the level of MDA in human fibroblasts, which is induced by UVA rays and thus show a high capacity harmful effects of oxidative stress to reduce to the skin.*

*[0032] UVB rays solved by activating an enzyme, namely phospholipase A2 or PLA2 in inflammation. This inflammation (erythema, edema) is caused by the removal of arachidonic acid from phospholipids in the plasma membrane by the phospholipase. Arachidonic acid is the precursor of the prostaglandins that cause inflammation and cell membrane*

**damage, and the prostaglandins E2 (= PGE2) are formed by the cyclooxygenase. The degree of release of Cytoplasmic enzymes LDH (lactate dehydrogenase) in human keratinocytes is a marker for cell damage.**

**[0033] The inventive extracts from the leaves of the plant *Argania spinosa* reduce the effect of UVB radiation on the number of keratinocytes and on the amount of released LDH. The extracts thus showing the ability to reduce the UVB radiation-induced damage to cell membranes.**

**[0034] The extracts from the leaves of the plant *Argania spinosa* work in the spirit of the invention as an antioxidant or free radical scavengers.**

**[0035] The antioxidants in the context of the invention are to understand antioxidants, which can be isolated from the leaves of the plant *Argania spinosa*. Antioxidants are capable of the undesirable effects to be inhibited by oxygen and other oxidative processes induced changes in the substances to be protected or prevented. The effect of antioxidants is usually that they act as scavengers for free radicals occurring during autoxidation.**

**[0036] In addition to the use of extracts of the plant *Argania spinosa*, further, already known antioxidants are used as antioxidants. One possible application of antioxidants, for example in cosmetic and / or dermatopharmaceutical preparations, the application as a secondary light protection agents, since antioxidants are able to interrupt the photochemical reaction chain which is triggered when UV radiation penetrates the skin. In addition to the inventive plant extract are more typical examples of these amino acids (e.g. Glycine, alanine, arginine, serine, threonine, histidine, tyrosine, tryptophan) and derivatives thereof, imidazoles (eg urocanic acid) and their derivatives, peptides such as D, L-carnosine, D-carnosine, L-carnosine and derivatives thereof (eg anserine), carotenoids, carotenes (eg alpha-carotene, beta-carotene, lycopene, lutein), or derivatives thereof, chlorogenic acid and derivatives thereof, lipoic acid and its derivatives (eg dihydrolipoic acid), aurothioglucose, propylthiouracil and other thiols (eg Thioredoxin, glutathione,**

**cysteine, cystine, cystamine and their glycosyl, N-acetyl, methyl, ethyl, propyl, amyl, butyl and lauryl, palmitoyl, oleyl, gamma-linoleyl, cholesteryl and glyceryl esters) and their salts, dilaurylthiodipropionate, distearyl, thiodipropionic and their derivatives (esters, ethers, peptides, lipids, nucleotides, nucleosides and salts) and Sulfoximinverbindungen (egButhioninsulfoximine, Homocysteinsulfoximin, Butioninsulfone, penta-, hexa-, Heptathioninsulfoximin) in very low tolerated doses (eg pmol to  $\mu$ mol / kg), furthermore (metal) chelators (eg alpha-hydroxy fatty acids, palmitic acid, phytic acid, lactoferrin), alpha - hydroxy acids (eg citric acid, lactic acid, malic acid), humic acid, bile acid, bile extracts, bilirubin, biliverdin, Boldin, Boldo Extract, EDTA, EGTA and derivatives thereof, unsaturated fatty acids and their derivatives (eggamma-linolenic acid, linoleic acid, oleic acid), folic acid and its derivatives, ubiquinone and ubiquinol and their derivatives, vitamin C and derivatives (eg ascorbyl palmitate, Mg ascorbyl phosphate, ascorbyl acetate), tocopherols and derivatives (egVitamin E acetate), vitamin A and derivatives (vitamin A palmitate) and Koniferylbenzoat of benzoin, rutinic acid and its derivatives, alpha-glycosyl rutin, ferulic acid, Furfurylidenglucitol, carnosine, butyl hydroxytoluene, butylated hydroxyanisole, Nordihydroguajakharzsäure, nordihydroguaiaretic acid, trihydroxybutyrophenone, uric acid and its derivatives, mannose and derivatives thereof, superoxide dismutase, zinc and its derivatives (eg ZnO, ZnSO<sub>4</sub>) selenium and its derivatives (egSelenium-methionine), stilbenes and derivatives thereof (eg stilbene oxide, trans-stilbene oxide) and derivatives suitable according to the invention (salts, esters, ethers, sugars, nucleotides, nucleosides, peptides and lipids) of these said active ingredients.**

**[0037] The further UV light protection factors and antioxidants in amounts of 0.01 to 25, preferably 0.03 to 10 and especially from 0.1 to 5 weight - can be added, based% on the total amount in the preparations.**

**[0038] The extracts from the leaves of the plant *Argania spinosa* work in the spirit of the invention as an anti-inflammatory care products that can cure an inflammation of the skin or that can**

***prevent inflammation. The inflammation can exhibit a variety of causes. In particular, inflammation can be treated, which are caused by UV radiation, bacterial contamination or skin lesions such as hormonal induced acne eg.***

***[0039] The extracts from the leaves of the plant Argania spinosa work in the spirit of the invention as antimicrobial agents, especially against any type of bacterial skin lesion. This change includes the type of skin infection by bacteria of different species and genera with one, such as staphylococci, streptococci, streptomycetes and / or Propionebakterien.***

***[0040] The extracts from the leaves of the plant Argania spinosa work in the spirit of the invention against skin aging, especially against any type of fine lines and wrinkles. Another name for this type of care products and anti-aging preparations. The uses include a slowing of aging processes of the skin with one. The aging phenomena can have various causes. In particular, these signs of aging may be caused due to apoptosis by UV radiation or by destroying the skin's natural proteins such as collagen or spandex-induced skin damage. The invention extracts from the leaves of the plant Argania spinosa act as anti-protease agent, particularly as anti-collagenase and elastase as an anti-agent.***

***[0041] In addition to the already mentioned effects of the extracts from the leaves of the plant Argania spinosa were found positive effects in influencing melanogenesis. Melanogenesis is the natural synthesis of melanin in the cells, specifically the melanocytes. This natural pigmentation can be influenced by intervening in the chain reaction of oxidation of tyrosine to L-DOPA to melanin. Skin whitening effect is achieved by the inhibition of melanogenesis, while a stimulation of melanogenesis can lead to increased pigmentation. The aqueous / alcoholic extracts from the leaves of the plant Argania spinosa, in particular aqueous / ethanolic extracts show a stimulation of melanogenesis. These effects allow you to use as a pigmenting agent or as a self-tanner.***

***[0042] Apart from the different extracts from the leaves of the plant Argania spinosa, the preparations may contain further self-***



***or tyrosinase. A suitable self-tanning agent is dihydroxyacetone. As tyrosinase inhibitors, which prevent the formation of melanin and are used in depigmentation agents, for example, arbutin, ferulic acid, koji acid, coumaric acid and ascorbic acid (vitamin C) in question.***

***[0043] The use of the novel extracts as protective and restorative care products is possible in principle for all the preparations that are used to prevent against damage or injury to the skin and / or hair and thus used in skin and hair care products. Any other use of this field is the application of a sensitive or damaged skin by allergies or other causes. The damage to the skin can have various causes.***

***[0044] The inventive preparations can be used for the production of cosmetic and / or dermatopharmaceutical preparations, such as hair shampoos, hair lotions, foam baths, shower baths, creams, gels, lotions, alcoholic and aqueous / alcoholic solutions, emulsions, wax / fat compositions, stick preparations, powders or ointments are used. Furthermore, the inventive preparations for oral administration in tablets, dragees, capsules, syrups, solutions and granules may be incorporated.***

***[0045] These preparations may contain as further auxiliaries and additives, mild surfactants, oil components, emulsifiers, pearlescent waxes, bodying agents, thickeners, super fatting, stabilizers, polymers, silicone compounds, fats, waxes, lecithins, phospholipids, biogenic active ingredients, deodorants, antiperspirants, anti-dandruff agents, film formers, swelling agents, insect repellents, hydrotropes, solubilizers, preservatives, perfume oils, dyes and the like.***

## **Surfactants**

***[0046] Suitable surfactants may be anionic, nonionic, cationic and / or amphoteric or zwitterionic surfactants, whose share of funds is normally about 1 to 70, preferably 5 to 50 and especially 10 to 30 wt -% is. Typical examples of anionic surfactants are***

**soaps, alkylbenzene sulfonates, alkane sulfonates, olefin sulfonates, glycerol ether, alpha-methyl ester, sulfo fatty acids, alkyl sulfates, fatty alcohol ether, fatty acid, hydroxy, monoglyceride (ether) sulfates sulfates, fatty acid amide (ether), mono-and dialkyl , mono-and sulfotriglycerides, ether carboxylic acids and their salts,Fatty acid isethionates, fatty acid, N-acyl amino acids, such as for example, acyl tartrates, acyl glutamates and acyl aspartates, alkyl oligoglucoside, protein fatty acid condensates (particularly wheat-based vegetable products) and alkyl (ether) phosphates. If the anionic surfactants contain polyglycol ether chains, they may have a conventional, but preferably have a narrowed homolog distribution. Typical examples of nonionic surfactants are fatty alcohol, alkylphenol, fatty acid, fatty amine polyglycol ethers, alkoxylated triglycerides, mixed ethers and mixed formals, yl oligoglycosides optionally partially oxidized alk (en) or glucuronic acid, fatty alkylglucamides-N, protein (especially plant products based on wheat) , polyol sugar esters, sorbitan esters, polysorbates and amine oxides.If the nonionic surfactants contain polyglycol ether chains, they may have a conventional, but preferably have a narrowed homolog distribution. Typical examples of cationic surfactants are quaternary ammonium compounds, such as the dimethyl and ester quats, in particular quaternized fatty acid. Typical examples of amphoteric or zwitterionic surfactants are betaines, alkylamido, amino-, aminoglycinates, imidazolinium and sulfobetaines. Said surfactants are exclusively known compounds. With regard to structure and production can be found in relevant synoptic works, for example J. Falbe (ed.), "Surfactants in Consumer Products" is, Springer Verlag, Berlin, 1987, p. 54-124 or J. Falbe (ed.), Directed "catalysts, surfactants and oil additives", Thieme Verlag, Stuttgart, 1978, p. 123-217. Typical examples of particularly suitable mild, ie particularly skin-compatible surfactants are fatty alcohol polyglycol ether sulfates, monoglyceride sulfates, mono-and / or dialkyl sulfosuccinates, fatty acid isethionates, fatty acid glutamates, alpha-olefin, ether oligoglucosides, fatty acid, alkylamido, amphoacetals and / or protein fatty acid condensates, preferably based on wheat proteins.**

## **Oil body**

**[0047] Suitable oil components are, for example, Guerbet alcohols based on fatty alcohols having 6 to 18, preferably 8 to 10 carbon atoms, esters of linear C6-C22 fatty acids with linear or branched C6-C22 fatty alcohols or esters of branched C6-C13 carboxylic acids with linear or branched C6-C22 fatty alcohols, such as Myristate, myristyl palmitate, myristyl stearate, myristyl isostearate, myristyl myristate, cetyl myristate, cetyl palmitate, cetyl oleate, cetyl behenate, isostearate, stearyl myristate, stearyl palmitate, stearyl stearate, stearyl behenate, stearyl, isostearyl isostearate, isostearyl palmitate, isostearyl isostearate, isostearyl oleate, isostearyl behenate, isostearyl oleate, oleyl myristate, oleyl palmitate, Oleyl stearate, oleyl isostearate, oleyl oleate, oleyl behenate, oleyl, behenyl, Behenylpalmitat, behenyl stearate, behenyl isostearate, behenyl oleate, behenyl, Behenyl erucat, Erucylmyristat, Erucylpalmitat, Erucylstearat, erucyl erucate, and Erucyl behenat erucyl erucate. Also suitable are esters of linear C6-C22 fatty acids with branched alcohols, especially 2-ethylhexanol, esters of C18-C38-alkyl hydroxycarboxylic acids with linear or branched C6-C22 fatty alcohols (cf. DE 19756377 A1), in particular Dioctyl Malate, esters of linear and / or branched fatty acids with polyhydric alcohols (such as Propylene glycol, dimer diol or trimer triol) and / or Guerbet alcohols, triglycerides based on C6-C10 fatty acids, liquid mono-/di-/triglyceride mixtures based on C6-C18 fatty acids, esters of C6-C22 fatty alcohols and / or Guerbet alcohols with aromatic carboxylic acids, especially benzoic acid, esters of C2-C12-dicarboxylic acids with linear or branched alcohols with 1 to 22 carbon atoms or polyols containing 2 to 10 carbon atoms and 2 to 6 hydroxyl groups, vegetable oils, branched primary alcohols, substituted cyclohexanes, linear and branched C6-C22 fatty alcohol, such as dicaprylyl carbonate (Cetiol TM CC), Guerbet carbonates based on fatty alcohols having 6 to 18, preferably 8 to 10 carbon atoms, esters of benzoic acid with linear and / or branched C6-C22 alcohols (e.g. Finsolv TM TN), linear or branched, symmetrical or asymmetrical**

***dialkyl ethers having 6 to 22 carbon atoms per alkyl group, such as Dicaprylyl ether (TM Cetiol OE), ring opening products of epoxidized fatty acid esters with polyols, silicone oils (cyclomethicone, silicon, etc.) and / or aliphatic or naphthenic hydrocarbons, for example squalane, squalene or dialkyl cyclohexanes.***

## ***Emulsifiers***

***[0048] Suitable emulsifiers are, for example, nonionic surfactants from at least one of the following groups:***

### ***EMI12.1***

***Adducts of 2 to 30 moles of ethylene oxide and / or 0 to 5 mol propylene oxide onto linear fatty alcohols with 8 to 22 carbon atoms, onto fatty acids having from 12 to 22 carbon atoms, to alkylphenols with 8 to 15 carbon atoms in the alkyl group and alkylamines 8 to 22 carbon atoms in the alkyl group;***

### ***EMI12.2***

***Alkyl and / or alkenyl having 8 to 22 carbon atoms in the alk (en) yl group and ethoxylated analogs thereof;***

### ***EMI12.3***

***Adducts of 1 to 15 mol ethylene oxide onto castor oil and / or hydrogenated castor oil;***

#### **EMI12.4**

**Adducts of 15 to 60 mol ethylene oxide onto castor oil and / or hydrogenated castor oil;**

#### **EMI12.5**

**Partial esters of glycerol and / or sorbitan with unsaturated, linear or saturated, branched fatty acids with 12 to 22 carbon atoms undloder hydroxycarboxylic acids having 3 to 18 carbon atoms and adducts thereof with 1 to 30 moles of ethylene oxide;**

#### **EMI12.6**

**Partial esters of polyglycerol (average degree of self-condensation 2 to 8), polyethylene glycol (molecular weight 400 to 5000), trimethylolpropane, pentaerythritol, sugar alcohols (eg sorbitol), alkyl glucosides (eg methyl glucoside, butyl glucoside, lauryl glucoside) and polyglucosides (eg Cellulose) with saturated and / or unsaturated, linear or branched fatty acids with 12 to 22 carbon atoms and / or hydroxycarboxylic acids having 3 to 18 carbon atoms and adducts thereof with 1 to 30 moles of ethylene oxide;**

#### **EMI12.7**

**Mixed esters of pentaerythritol, fatty acids, citric acid and fatty alcohol according to DE 1165574 PS and / or mixed esters of fatty acids with 6 to 22 carbon atoms, methylglucose and polyols, preferably glycerol or polyglycerol.**

#### **EMI12.8**

**Mono-, di-and trialkyl phosphates and mono-, di-and / or tri-PEG alkyl phosphates and salts thereof;**

**EMI12.9**

***Wool wax alcohols;***

**EMI12.10**

***Polysiloxane-polyalkyl-polyether copolymers and corresponding derivatives;***

**EMI12.11**

***Block copolymers such as polyethylene glycol-30  
Dipolyhydroxystearate;***

**EMI12.12**

***Polymer emulsifiers, eg Pemulen grades (TR-1, TR-2) from  
Goodrich;***

**EMI12.13**

***Polyalkylene glycols and***

**EMI12.14**

***Glycerol.***

***[0049] The addition products of ethylene oxide and / or of  
propylene oxide onto fatty alcohols, fatty acids, alkylphenols or  
onto castor oil are known commercially available our products  
to is there are homolog mixtures whose average degree of***

***alkoxylation corresponds to the ratio between the quantities of ethylene oxide and / or propylene oxide and substrate with which the addition reaction is carried out complies. C12/18-Fettsäuremono- and diesters of addition products of ethylene oxide onto glycerol are known from DE 2024051 PS as lipid layer enhancers for cosmetic formulations.***

***[0050] Alkyl and / or alkenyl, their preparation and their use are known in the art. They are produced in particular by reacting glucose or oligosaccharides with primary alcohols having 8 to 18 carbon atoms. With regard to the glycoside radical, both monoglycosides in which a cyclic sugar radical is glycosidically bonded to the fatty alcohol, and oligomeric glycosides with a suitable degree of oligomerization of preferably up to about 8. The degree of oligomerization is a statistical average, which is customary for such technical products is based on homolog distribution.***

***[0051] Typical examples of suitable partial glycerides are hydroxystearic acid, hydroxystearic acid, isostearic acid, isostearic acid diglyceride, monoglyceride, Ölsäurediglycerid, Ricinolsäuremonoglycerid, Ricinolsäurediglycerid, Linolsäuremonoglycerid, Linolsäurediglycerid, Linolensäuremonoglycerid, Linolensäurediglycerid, Erucasäuremonoglycerid, Erucasäurediglycerid, Weinsäuremonoglycerid, Weinsäurediglycerid, Citronensäuremonoglycerid, Citric, Äpfelsäuremonoglycerid, Äpfelsäurediglycerid and technical mixtures thereof which may include subordinate from the manufacturing process, small amounts of triglyceride. Also suitable are addition products of 1 to 30, preferably 5 to 10 mol ethylene oxide onto said partial glycerides.***

***[0052] The sorbitan esters are sorbitan monoisostearate, Sorbitansesquiisostearat, Sorbitandiisostearat, Sorbitantriisostearat, sorbitan monooleate, sorbitan, sorbitan dioleate, sorbitan trioleate, Sorbitanmonoerucat, Sorbitansesquierucat, Sorbitandierucat, Sorbitantrierucat, Sorbitanmonoricinoleat, Sorbitansesquiricinoleat, Sorbitandiricinoleat, Sorbitantriricinoleat, Sorbitanmonohydroxystearat, Sorbitansesquihydroxystearat,***

***Sorbitandihydroxystearat,  
Sorbitantrihydroxystearat, Sorbitanmonotartrat,  
Sorbitansesquitartrat, Sorbitanditartrat, Sorbitantritartrat,  
Sorbitanmonocitrat, sorbitan, sorbitan, sorbitan, sorbitan,  
sorbitan, sorbitan, sorbitan and technical mixtures thereof. Also  
suitable are addition products of 1 to 30, preferably 5 to 10 mol  
ethylene oxide onto said sorbitan esters.***

***[0053] Typical examples of suitable polyglycerol esters are  
Polyglyceryl-2 Dipolyhydroxystearate (Dehymuls TM PGPH),  
polyglycerol-3-Diisostearate (Lameform TM TGI), polyglyceryl-4  
isostearate (Isolan TM Eq 34), Polyglyceryl-3 Oleate,  
Diisostearoyl Polyglyceryl-3 Diisostearate (TM Isolan PDI),  
polyglyceryl-3 methylglucose distearate (Tego Care ® 450),  
Polyglyceryl-3 Beeswax (Cera Bellina ®), polyglyceryl-4 caprate  
(polyglycerol caprate T2010/90), Polyglyceryl-3 Cetyl Ether (TM  
ChimexaneNL), Polyglyceryl-3 Distearate (Cremophor ® GS 32)  
and polyglyceryl polyricinoleate (TM Admul WOL 1403)  
polyglyceryl isostearate, and mixtures Dimerate. Examples of  
further suitable polyol esters are optionally substituted with 1 to  
30 moles of ethylene oxide reacted mono-, di- and triesters of  
trimethylolpropane or pentaerythritol with lauric acid, coconut  
fatty acid, palmitic acid, stearic acid, behenic acid and the like.***

***[0054] Other suitable emulsifiers are zwitterionic surfactants.  
Zwitterionic surfactants are surface-active compounds that carry  
at least one quaternary ammonium group and at least one  
carboxylate and one sulfonate group. Particularly suitable  
zwitterionic surfactants are the betaines, such as the N-alkyl-N,  
N-dimethyl, for example cocoalkyldimethylammonium glycinate,  
N-acylaminopropyl-N, N-dimethyl, for example  
cocoacylaminopropyldimethylammonium glycinate, and 2-alkyl-  
3-carboxymethyl-3-hydroxyethyl imidazolines containing 8 to 18  
carbon atoms in the alkyl or acyl group and cocoacylaminoethyl  
Particularly preferred is that under the CTFA name  
Cocamidopropyl Betaine known fatty acid derivative. Likewise  
suitable emulsifiers are ampholytic surfactants. Ampholytic  
surfactants are surface-active compounds which, besides  
containing a C8/18-Alkyl- or acyl group, contain at least one free  
amino group and at least one-COOH or-SO<sub>3</sub>H group and are***



**capable of forming internal salts. Examples of suitable ampholytic surfactants are N-alkyl glycines, N-alkyl propionic acids, N-alkyl aminobutyric acids, N-alkyliminodipropionic, N-hydroxyethyl-N-alkylamido, N-alkyltaurines, N-alkylsarcosines, 2-alkyl and alkylamino acetic acids containing around 8 to 18 C atoms in the alkyl group. Particularly preferred ampholytic surfactants are N-cocoalkylaminopropionate, cocoacylaminoethylaminopropionate and C12/18-Acylsarcosin. Finally, cationic surfactants as emulsifiers, those of the ester quat type, preferably methyl difatty acid triethanolamine ester salts, being particularly preferred.**

### **Fats and waxes**

**[0055] Typical examples of fats are glycerides, ie solid or liquid, vegetable or animal products which consist essentially of mixed glycerol esters of higher fatty acids, suitable waxes are inter alia natural waxes, such as Candelilla wax, carnauba wax, Japan wax, esparto grass, guaruma, rice germ oil wax, sugarcane wax, montan wax, beeswax, shellac wax, spermaceti, lanolin (wool wax), uropygial grease, ceresin, ozokerite (earth wax), petrolatum, paraffin waxes, microcrystalline waxes, chemically modified waxes ( hard waxes) such as montan ester waxes, hydrogenated jojoba waxes and synthetic waxes, such as polyalkylene waxes and polyethylene glycol. Besides the fats, suitable additives are fat-like substances such as lecithins and phospholipids. The term lecithins is understood by the experts as glycerophospholipids which are formed from fatty acids, glycerol, phosphoric acid and choline by esterification. Lecithins are also frequently the professional world as phosphatidylcholines (PC). Examples of natural lecithins which kephalins, also known as phosphatidic acids and constitute derivatives of 1,2-diacyl-sn-glycerol-3-phosphoric. In contrast, phospholipids are generally understood by one mono-and preferably diesters of phosphoric acid with glycerol (glycerol phosphates), which are generally reckoned as fats. And also, sphingosine and sphingolipids in question.**

## **Pearlescent**

**[0056] The waxes are, for example, alkylene glycol esters, specifically ethylene glycol, fatty acid alkanolamides, specifically coconut fatty acid diethanolamide; partial glycerides, especially stearic acid, esters of polybasic, optionally hydroxy-substituted carboxylic acids with fatty alcohols containing 6 to 22 carbon atoms, especially long-chain esters of tartaric acid, fatty substances, such as fatty alcohols, fatty ketones, Fatty aldehydes, which have in total at least 24 carbon atoms, especially Lauron and distearyl; fatty acids such as stearic acid, hydroxystearic acid or behenic acid, ring opening products of olefin epoxides having 12 to 22 carbon atoms with fatty alcohols having 12 to 22 carbon atoms and / or polyols containing 2 to 15 carbon atoms and 2-10 hydroxyl groups and mixtures thereof.**

## **Bodying and thickeners**

**[0057] The consistency factors mainly used are fatty alcohols or hydroxy with 12 to 22 and preferably 16 to 18 carbon atoms and also partial glycerides, fatty acids or hydroxy. A combination of these substances with alkyloligoglucosides and / or fatty acid N-methyl same chain length and / or polyglycerol poly-12-hydroxystearates. Suitable thickening agents for example, Aerosil types (hydrophilic silicas), polysaccharides, especially xanthan gum, guar guar, agar-agar, alginates and tyloses, carboxymethyl cellulose and hydroxyethyl cellulose, also relatively high molecular weight polyethylene glycol mono and diesters of fatty acids, polyacrylates (eg Carbopol TM and Pemulen grades from Goodrich; Synthalens TM from Sigma; Keltrol grades from Kelco; Sepigel types of Seppic; Salcare grades from Allied Colloids), polyacrylamides, polyvinyl alcohol and polyvinylpyrrolidone, surfactants such as ethoxylated fatty acid glycerides, esters of fatty acids with polyols such as**

***pentaerythritol or trimethylolpropane, fatty alcohol ethoxylates having a narrowed homolog distribution or oligoglucosides and electrolytes such as sodium chloride and Ammonium chloride.***

## **Superfatting**

***[0058] As superfatting, substances such as lanolin and lecithin and polyethoxylated or acylated lanolin and lecithin derivatives, monoglycerides and fatty acid alkanolamides, the latter serving as foam stabilizers.***

## **Stabilizers**

***[0059] Suitable stabilizers are metal salts of fatty acids, such as Magnesium, aluminum and / or zinc stearate or ricinoleate.***

## **Polymers**

***[0060] Suitable cationic polymers include cationic cellulose derivatives, such as a quaternized hydroxyethylcellulose obtainable under the name Polymer JR 400 ® from Amerchol, cationic starch, copolymers of diallyl ammonium salts and acrylamides, quaternized vinylpyrrolidone / vinylimidazole polymers, such as Luviquat <sup>TM</sup> (BASF), condensation products of polyglycols and amines, quaternized collagen polypeptides, such as Lauryldimonium Hydroxypropyl Hydrolyzed Collagen (TM Lamequat L / Grünau), quaternized wheat polypeptides, polyethyleneimine, cationic silicone polymers such as Amodimethicone, copolymers of adipic acid and dimethylamino (Cartaretine TM / Sandoz), copolymers of acrylic acid with dimethyl diallyl ammonium chloride (Merquat TM 550,***

**Chemviron), such as described in FR 2252840 A and crosslinked water-soluble polymers, cationic chitin derivatives such as quaternized chitosan, optionally in microcrystalline distribution, condensation products of dihaloalkyls, such as Dibromobutane bisdialkylamines with, for example bis-dimethylamino-1,3-propane, cationic guar gum such as Jaguar ® CBS, Jaguar ® C-17, Jaguar ® C-16 of Celanese, quaternized ammonium salt polymers, such as Mirapol TM A-15, AD-1 Mirapol TM, TM Mirapol AZ-1 from Miranol.**

**[0061] As anionic, zwitterionic, amphoteric and nonionic polymers are, for example, vinyl acetate / crotonic acid copolymers, vinylpyrrolidone / vinyl acrylate copolymers, vinyl acetate / butyl maleate / isobornyl acrylate copolymers, methyl vinyl ether / maleic anhydride copolymers and esters thereof, uncrosslinked and polyol-crosslinked polyacrylic acids, acrylamidopropyltrimethyl / acrylate copolymers, Octylacrylamid/Methylmethacrylat/tertButylaminoethylmethacrylat/2-Hydroxypropylmethacrylat-Copolymere, polyvinylpyrrolidone, vinylpyrrolidone / vinyl acetate copolymers, vinylpyrrolidone / dimethylaminoethyl methacrylate / vinyl caprolactam terpolymers and optionally derivatized cellulose ethers and silicones. Other suitable polymers and thickeners are listed in Cosm. 108, 95 (1993) listed.**

## **Silicone Compounds**

**[0062] Suitable silicone compounds such as dimethyl polysiloxanes, cyclic silicones and amino-, are fatty acid-, alcohol-, polyether-, epoxy-, fluorine-, glycoside-and / or alkyl modified silicone compounds which may be present at room temperature, both liquid and resin-like .Also suitable are silicone compounds, which are themselves mixtures of dimethicones with an average chain length of 200 to 300 dimethylsiloxane units and hydrogenated silicates. A detailed overview of suitable**

***volatile silicones can be found in Todd et al. in Cosm. 91, 27 (1976).***

### ***Biogenic active ingredients***

***[0063] Biogenic active ingredients are to be understood in the context of the invention, in addition those that do not originate from the plant *Argania spinosa*, such as tocopherol acetate, tocopherol palmitate, ascorbic acid, (deoxy) ribonucleic acid and fragmentation products, retinol, bisabolol, allantoin, phytantriol, panthenol, AHA acids, amino acids, ceramides, pseudoceramides, essential oils, plant extracts and other additional vitamin complexes.***

### ***Deodorants and Germ Inhibitors***

***[0064] Cosmetic deodorants (deodorants) counteract body odors mask or eliminate them. Body odors are formed through the action of skin bacteria on apocrine sweat, unpleasant-smelling degradation products. Accordingly, deodorants contain active principles which act as germ inhibitors, enzyme inhibitors, odor absorbers or odor maskers. When antimicrobial agents are, in principle, all suitable substances against gram-positive bacteria, such as 4-hydroxybenzoic acid and its salts and esters, N-(4-chlorophenyl)-N'-(3,4-dichlorophenyl) urea, 2,4,4'-trichloro-2'-hydroxydiphenyl (triclosan), 4-chloro-3,5-dimethyl-phenol, 2,2'-methylenebis (6-bromo-4-chlorophenol), 3-methyl-4-(1-methylethyl) phenol, 2-benzyl-4-chlorophenol, 3-(4-chlorophenoxy)-1,2-propanediol, 3-iodo-2-propynyl butylcarbamate, chlorhexidine, 3,4,4'-trichlorocarbanilide (TTC), antibacterial fragrances, thymol, thyme oil, eugenol, clove oil, menthol, mint oil, farnesol, phenoxyethanol, Glycerinmonocaprinat, glycerol monocaprylate, glycerol monolaurate (GML), diglycerol (DMC), salicylic acid N-***

***alkylamides such as salicylic acid or salicylic acid-n-octyl-n-decylsalicylamide.***

***[0065] Suitable enzyme inhibitors are suitable, for example, esterase inhibitors. These are preferably trialkyl citrates, such as trimethyl citrate, triisopropyl citrate, tributyl citrate and especially triethyl citrate (TM Hydagen CAT). The substances inhibit enzyme activity and thus reduce odor formation. Other substances which are suitable esterase inhibitors are sterol sulfates or phosphates, such as lanosterol, cholesterol, campesterol, stigmasterol and sitosterol sulfate or phosphate, dicarboxylic acids and their esters, such as glutaric acid, monoethyl glutarate, diethyl glutarate, adipic acid, Adipinsäuremonoethylester, malonic acid and diethyl malonate, hydroxycarboxylic acids and their esters such as citric acid, Malic acid, tartaric acid or diethyl tartrate, and zinc glycinate.***

***[0066] Suitable odor absorbers are substances that absorb the odor-forming compounds and largely retaining. They reduce the partial pressure of the individual components and thus their rate of spread. The important thing is that perfumes must remain unimpaired. Odor absorbers are not effective against bacteria. For example, contained as a main constituent, a complex zinc salt of ricinoleic acid or specific, largely odor-neutral fragrances which the expert as "fixatives" are known, such as extracts of labdanum or styrax or certain abietic acid derivatives. The odor masking agents are fragrances or perfume oils, which give, in addition to their function as odor masking the deodorants their respective fragrance note. Suitable perfume oils are, for example, mixtures of natural and synthetic fragrances. Natural fragrances are extracts from flowers, stems and leaves, fruits, fruit peel, roots, woods, herbs and grasses, needles and branches, resins and balsams. Animal raw materials in question, for example civet and beaver. Typical synthetic fragrance compounds are products of the esters, ethers, aldehydes, ketones, alcohols and hydrocarbons. Fragrance compounds of the ester type are benzyl acetate, p-tert-butyl cyclohexyl acetate, linalyl acetate, linalyl benzoate, benzyl formate, allyl, styryl propionate and***

**benzyl salicylate. The ethers, for example, benzyl ethyl ether while aldehydes eg the linear alkanols with 8 to 18 carbon atoms, citral, citronellal, cyclamen aldehyde, hydroxy, and Lilial bourgeonal, the ketones eg the ionone and methyl alcohols include anethole, citronellol, eugenol, isoeugenol, geraniol, linalool, phenylethyl alcohol and terpineol, the hydrocarbons include mainly the terpenes and balsams. However, preference is given to using mixtures of different fragrances which together produce a pleasing fragrance. Essential oils of low volatility which are mostly used as aroma components, are suitable as perfume oils, eg Sage oil, camomile oil, clove oil, melissa oil, mint oil, cinnamon leaf oil, lime blossom oil, juniper berry oil, vetiver oil, olibanum oil, galbanum oil, lavender oil and laudanum. Preferably, bergamot oil, dihydromyrcenol, Lilial, lylal, citronellol, phenylethyl, alpha-hexyl cinnamic aldehyde, geraniol, benzyl acetone, cyclamen aldehyde, linalool, Boisambrene Forte, ambroxan, indole, hedione, sandelice, lemon oil, mandarin oil, orange oil, allyl, cyclovertal, lavender, clary sage oil, beta-damascone, geranium oil bourbon, cyclohexyl salicylate, Coeur, Iso E Super, Fixolide NP, Evernyl, iraldein gamma, phenylacetic acid, geranyl acetate, benzyl acetate, Oxide, romilat, and irotyl floramat alone or in mixtures.**

**[0067] antiperspirants (antiperspirants) reduce by influencing the activity of the eccrine sweat glands, perspiration and thus counteract underarm wetness and body odor. Aqueous or anhydrous formulations of antiperspirants typically contain the following ingredients:**

#### **EMI18.1**

**astringent active ingredients,**

#### **EMI18.2**

**Oil components,**

**EMI18.3**

***nonionic emulsifiers,***

**EMI18.4**

***Co-emulsifiers,***

**EMI18.5**

***Consistency,***

**EMI18.6**

***Excipients such as thickeners or complexing agents and / or***

**EMI18.7**

***non-aqueous solvents such as ethanol, propylene glycol and / or glycerol.***

***[0068] Suitable astringent antiperspirant active ingredients are primarily salts of aluminum, zirconium or zinc. Such suitable antihydrotic active ingredients are Aluminum chloride, aluminum chlorohydrate, aluminum sesquichlorohydrate and complex compounds such as propylene glycol with 1, 2 Aluminum hydroxyallantoinate, hydroxyallantoinate, aluminum chloride tartrate, aluminum zirconium tetrachlorohydrate, aluminum zirconium pentachlorohydrate and complex compounds such as amino acids such as glycine. In antiperspirants, customary oil-soluble and water-soluble additives in small amounts to be included. Such oil-soluble auxiliaries may, for example:***



**EMI18.8**

***anti-inflammatory, skin-protecting or pleasant-smelling essential oils,***

**EMI18.9**

***synthetic skin-protecting agents and / or***

**EMI18.10**

***oil-soluble perfume oils.***

***[0069] Typical water-soluble additives include preservatives, water-soluble fragrances, pH regulators, eg buffer mixtures, water-soluble thickeners, for example water-soluble natural or synthetic polymers such as xanthan gum, hydroxyethylcellulose, polyvinylpyrrolidone or high molecular weight polyethylene oxides.***

***Film former***

***[0070] Standard film formers are, for example, chitosan, microcrystalline chitosan, quaternized chitosan, polyvinylpyrrolidone, vinylpyrrolidone-vinyl acetate copolymers, polymers of acrylic acid series, quaternary cellulose derivatives, collagen, hyaluronic acid and salts thereof and similar compounds.***

## ***Anti-dandruff agents***

***[0071] As anti-dandruff agents are Pirocton olamine (1-hydroxy-4-methyl-6-(2,4,4-trimethylpentyl) -2 - (1H)-pyridin), Baypival TM (Climbazole), ketoconazole, TM, (DOLLARS acetyl -1 - {4 - [2 - (24-dichlorophenyl) r-2-(1H-imidazole-1-ylmethyl) -1,3-dioxylanc-4-ylmethoxyphenyl} piperazine, ketoconazole, Elubiol, selenium disulfide, sulfur, colloidal sulfur, sulfur, Schwfel tar distillates, salicylic acid (or in combination with hexachlorophene) in, undecylenic monoethanolamide sulfosuccinate Na salt, Lamepon TM UD (protein undecylenic acid-), zinc pyrithione, Aluminiumpyrithion and magnesium / magnesium sulfate dipyrithione question.***

## ***Swelling agent***

***[0072] The swelling agents for aqueous phases are montmorillonites, clay minerals, Pemulen and alkyl-modified Carbopol types (Goodrich). Other suitable polymers or swelling agents can be found in R. Lochhead in Cosm. Be removed 108, 95 (1993).***

## ***Insect repellents***

***[0073] Suitable insect repellents are N, N-diethyl-m-toluamide, 1,2-pentanediol or ethyl Butylacetylaminopropionate***

## ***Hydrotropic***

***[0074] To improve the flow behavior can also hydrotropes such as ethanol, isopropyl alcohol or polyols. Polyols which are suitable here preferably have 2 to 15 carbon atoms and at least two hydroxyl groups. The polyols can be modified further functional groups, especially amino groups, or with nitrogen. Typical examples are***

#### ***EMI19.1***

***Glycerol;***

#### ***EMI19.2***

***Alkylene glycols such as ethylene glycol, diethylene glycol, propylene glycol, butylene glycol, hexylene glycol and polyethylene glycols with an average molecular weight of 100 to 1000 Daltons;***

#### ***EMI19.3***

***technical oligoglycerol mixtures with a degree of self-condensation of 1.5 to 10, for example technical diglycerol mixtures with a diglycerol content of 40 to 50 wt -%;***

#### ***EMI19.4***

***Methylol compounds, such as in particular trimethylol ethane, trimethylol propane, trimethylol butane, pentaerythritol and dipentaerythritol;***

#### ***EMI20.1***

***Niedrigalkylglucoside, especially those having 1 to 8 carbon atoms in the alkyl such as methyl and butyl glucoside;***

***EMI20.2***

***Sugar alcohols containing 5 to 12 carbon atoms, such as sorbitol or mannitol,***

***EMI20.3***

***Sugars containing 5 to 12 carbon atoms, such as glucose or sucrose;***

***EMI20.4***

***Amino sugars, for example glucamine;***

***EMI20.5***

***Dialcohol, such as diethanolamine or 2-amino-1,3-propanediol.***

***Preservative***

***[0075] Suitable preservatives are, for example, phenoxyethanol, formaldehyde solution, parabens, pentanediol or sorbic acid, and in Appendix 6, Parts A and B of the Kosmetikverordnung other classes of compounds.***

***Perfume oils***

**[0076] Suitable perfume oils are mixtures of natural and synthetic fragrances. Natural fragrances are extracts from flowers (lily, lavender, rose, jasmine, neroli, ylang-ylang), stems and leaves (geranium, patchouli, petitgrain), fruits (anise, coriander, caraway, juniper), fruit peel (bergamot, lemon, oranges), roots (mace, angelica, celery, cardamom, Costus, iris, calamus), woods (pinewood, sandalwood, guaiac wood, cedarwood, rosewood), herbs and grasses (tarragon, lemon grass, sage, thyme), needles and branches (spruce, fir, pine, dwarf pine), resins and Balsams (galbanum, elemi, benzoin, myrrh, frankincense, opoponax). Animal raw materials in question, for example civet and beaver. Typical synthetic fragrance compounds are products of the esters, ethers, aldehydes, ketones, alcohols and hydrocarbons. Fragrance compounds of the ester type are benzyl acetate, phenoxyethyl isobutyrate, p-tert. Cyclohexyl acetate, linalyl acetate, dimethylbenzyl, phenylethyl, linalyl benzoate, benzyl formate, ethyl methyl, allyl, styryl propionate and benzyl salicylate. The ethers, for example, benzyl ethyl ether while aldehydes eg the linear alkanols with 8 to 18 carbon atoms, citral, citronellal, cyclamen aldehyde, hydroxy, and Lilial bourgeonal, the ketones eg the ionone, alpha-and methyl isomethylionone, the alcohols include anethole, citronellol, eugenol, isoeugenol, geraniol, linalool, phenylethyl alcohol and terpineol, the hydrocarbons include mainly the terpenes and balsams. However, preference is given to using mixtures of different fragrances which together produce a pleasing fragrance. Essential oils of low volatility which are mostly used as aroma components, are suitable as perfume oils, eg Sage oil, camomile oil, clove oil, melissa oil, mint oil, cinnamon leaf oil, lime blossom oil, juniper berry oil, vetiver oil, olibanum oil, galbanum oil, lavender oil and Labolanumöl. Preferably, bergamot oil, dihydromyrcenol, Lilial, lyral, citronellol, phenylethyl, alpha-hexyl cinnamic aldehyde, geraniol, benzyl acetone, cyclamen aldehyde, linalool, Boisambrene Forte, ambroxan, indole, hedione, sandelice, lemon oil, mandarin oil, orange oil, allyl, cyclovertal, lavender, clary sage oil, beta-damascone, geranium oil bourbon, cyclohexyl salicylate, Coeur, Iso E Super, Fixolide NP, Evernyl,**

***iraldein gamma, phenylacetic acid, geranyl acetate, benzyl acetate, Rose oxide, romillat, and irotyl floramat alone or in mixtures.***

## ***Dyes***

***[0077] Dyes that can be used for cosmetic purposes are permitted and suitable substances, such as for example in the publication "cosmetic dyes" Dyes Commission of the Deutsche Forschungsgemeinschaft, Verlag Chemie, Weinheim, 1984, are summarized p.81-106. These dyes are normally used in concentrations of 0.001 to 0.1-%, Based on the total mixture.***

## ***Examples***

***1st For example, extracting the plant with distilled water***

***[0078] 0.3 kg of crushed leaves of the plant Argania spinosa were transferred into a glass vessel and infused with 3 l of distilled water. The mixture was stirred at 80-90 ° C for one hour. Then the mixture was allowed to cool to room temperature and centrifuged for 15 min at a speed of 5000 g. The supernatant liquid was removed by filtration of colloidal depth filters with an average porosity of 450 nm (from Seitz, Bordeaux, France), separated from the residue and then spray dried. The yield of dry product calculated on dry weight of the leaves was 25.6 wt - %.***

***2nd For example, extracting the plant with aqueous methanol***

***[0079] Example 1 was repeated, but the extraction with 1 l of 80 wt- Done% aqueous methanol and 0.1 kg of crushed leaves. The extraction was carried out with stirring for 1 h at boiling temperature under reflux and the extract was further processed as described. The filtration was carried out as described in Example 1. Then the alcohol was initially at 45 ° C removed under reduced pressure and the residue is then described as spray-dried. The yield of dry product was 21.5 wt-% Calculated on the dry weight of plants used.***

***3rd For example, the extraction with aqueous ethanol plants***

***[0080] Example 1 was repeated, however, carried out the extraction with 31 aqueous ethanol and 0.1 kg of leaves, wherein the volume ratio of ethanol to water was 6 to 4. The extraction was carried out with stirring for 1 h at boiling temperature under reflux and the extract was further processed as described. The filtration as described in Example 1 was performed and the residue was washed again with 0.30 l of ethanol. Then the alcoholic at 45 ° C was removed under reduced pressure and the residue is then spray dried. The yield of dry product was 21.53 wt -% based on the dry weight of plants used.***

***4thExample: Antimicrobial Effectiveness***

***[0081] To determine the antimicrobial effectiveness were 6 mm wide plate made of filter paper, which were soaked with 20 mu l of various test solutions (1% and 5%) applied to the surface of a freshly displaced with Staphylococcus aureus agar preparation (1.5 10 <6> bacteria / ml). To produce these agar-agar preparation, a solution with 2-4 ml inoculum suspended, placed in a Petri dish and 20 minutes, dried at 37 ° C. The inoculum was***

**obtained by 18-hour anaerobic incubation of the bacteria *Staphylococcus aureus*. Efficacy was assessed by determining the average diameter of the areas within which no bacterial growth could be detected. The results are summarized in Table 1:**

**Id = TABLE 1 Columns = 4**

**Efficacy against bacteria (data as Inhbierungs zone diameter in mm)**

**Head Col 1: Concentration [wt% L**

**Head Col 2: Extract, Example 1**

**Head Col 3: extract, Example 2**

**Head Col 4: extract, Example 3**

**1 7**

**5 14 12 7**

**[0082] The inhibition zones 7 to 14 mm show a significant inhibition of growth of *Staphylococcus aureus* bacteria in the environment of the filter disks impregnated with the extracts.**

**5thFor example, activity against free radicals**

**[0083] In a first test series was investigated the suitability of the extracts against oxidative stress. The extracts were used according to the Examples 1 to 3 each at a concentration of 0.3 weight -%. As a first test substrate was Diphenylpicrylhydrazyl (DPPH) is selected, a purple-colored stable radical, which is excreted by contact with free radical scavengers in Leucoderivat be uncoloured. The color change can be monitored**



**photometrically. The results are summarized in Table 2 ("DPPH test"), is given in% inhibition of DPPH-absolutely. In another test, a reference system, the hydroxylation of salicylate by hydroxyl radicals (ions from the reaction of hydrogen peroxide with iron (III) and EDTA) were investigated. This reaction can be studied photometrically, because the hydroxylation is reddish in color. Measured the influence of the extracts on the formation of Hydroxysalicylsäure at an optical density of 490 nm The results are also summarized in Table 1, indicated again the inhibition in% absolute ("salicylic acid-test"). In a third and final test was chosen as the xanthine oxidase assay system. The enzyme causes oxidative stress in the conversion of purine bases, such as Adenine or guanine in uronic acid, whereby the oxygen radicals formed as intermediates can be detected via the reaction with luminol luminescence and quantified. Reduced in the presence of substances with radical-scavenging properties, the luminescence efficiency. These results are summarized in Table 2, again in the inhibition% is absolutely indicated ("luminol test").**

**Id = Table 2 Columns = 4**

**Radikalinhibierung [%-absolute]**

**Head Col 1:**

**Head Col 2: Test DPPH**

**Head Col 3: Salicylic Acid Test**

**Head Col 4: Luminol test**

**Extract after Beispiel 1 83 62 100**

**Extract of Example 2 100 65 100**

**Extract of Example 3 88 57 100**

***[0084] The extracts of leaves of Argania spinosa showed a high potential of free radicals and reactiveAbsorb oxygen and can be used for the reason well as antioxidants in cosmetic preparations or dermopharmaceutical.***

***6th Example: cell protection against UVA in vitro cultured human fibroblasts***

***[0085] Background: UVA rays penetrate into the dermis, where they cause oxidative stress, which is demonstrated by the cytoplasmic membrane lipoperoxidation.***

***[0086] The lipoperoxides be degraded to Malonaldialdehyd that will link many biological molecules such as proteins and nucleic bases (enzyme inhibition or mutagenesis).***

***[0087] Glutathione (GSH) is a peptide that is produced directly by the cells to counteract oxidative stress and harmful environmental influences such as mercury or lead to increased stress contrary. The remaining content of GSH after irradiation with UVA radiation was determined by the method described by Hissin, in Anal. Biochem., 74, 214-226, 1976.***

***[0088] Method: To carry out these tests was inoculated a defined culture medium (DMEM) with 10% fetal calf serum with the fibroblasts and added to the plant extract (in the defined medium containing 2% serum) 72 hours after inoculation.***

***[0089] After 48 hours incubation at 37 ° C and a CO<sub>2</sub> content of 5% has replaced the culture medium by a saline solution and the fibroblasts were irradiated with a UVA dose (20 J / cm<sup>2</sup>; tubes: MAZDA FLUOR TFWN40 ).***

***[0090] After the completion of irradiation was determined by the content of cell proteins and the proportion of GSH and MDA levels (Malonaldialdehyd levels) in the supernatant saline quantified by reaction with thiobarbituric acid. The results are given in percent compared to the control without irradiation.***

***Id = Table 3 Columns = 4***

***Quantification of Malonaldehyde, based in fibroblasts (results in% to control, mean of two experiments, each with three repetitions***

***Head Col 1: Concentration***

***(Wt-%)***

***Head Col 2: MDA levels***

***Head Col 3: content of cell proteins***

***Head Col 4: Percentage of GSH***

***Control with no UV 0 100 100***

***UVA (20 J / cm <sup>2</sup>) 100 100 49***

***UVA + extract of Example 1 0.003% 79 102 45***

***UVA + extract of Example 2 0.001% 42 117 83***

***UVA + extract of Example 3 0.003% 34 117 94***

***[0091] The results in Table 3 show that the inventive extract significantly reduced from the leaves of the plant Argania spinosa the level of MDA in human fibroblasts, which is induced by UVA rays. Again according to a high activity, keep the amount of GSH in human fibroblasts after irradiation with UVA radiation is relatively constant. These results show a high capacity of extracts from the leaves of Argania spinosa harmful effects of oxidative stress to reduce to the skin.***

***7th Example: Anti-inflammatory properties in vitro - UVB sun protection***

***Cell protection against UVB in vitro cultured human keratinocytes***

***[0092] Background: UVB radiation (280-320 nm) resolved by activating an enzyme, namely phospholipase A2 or PLA2, arachidonic acid from the phospholipids of the plasma membrane removed, inflammation (erythema, edema) out. Arachidonic acid is the precursor of the prostaglandins that cause inflammation and cell membrane damage, and the prostaglandins E2 (= PGE2) are formed by the cyclooxygenase.***

***[0093] Method: The effect of UVB radiation has been studied in keratinocytes in vitro by measuring the release of Cytoplasmaenzymes LDH (lactate dehydrogenase) was determined. This enzyme serves as a marker for cell damage.***

***[0094] To carry out the tests a defined medium (DMEM) containing 10% fetal calf serum, inoculated with the keratinocytes and the plant extract (diluted with saline) added 72 hours after inoculation.***

***[0095] The keratinocytes were then irradiated with a dose of UVB (50 mJ / cm<sup>2</sup> - Tubes: DUKE GL40E).***

***[0096] After further 1 day incubation at 37 °C and 5% CO<sub>2</sub> was determined as LDH and PGE2 content in the supernatant. The content of LDH (lactate dehydrogenase) was determined by an enzymatic reaction (kit used for the study of the LDH content from Roche) The content of PGE2 was determined using an ELISA assay (ELISA kit from Roche). After trypsin treatment, cells were centrifuged and counted.***

***Id = TABLE 4 Columns = 3***

***Cell-protective effect of an extract of leaves of Argania spinosa against UVB rays, results in% relative to the control, mean of two experiments, each with two repetitions***

***Head Col 1: Extract of Example 1***

***Head Col 2: number of keratinocytes (%)***

***Head Col 3: amount of released LDH (%)***

***Control with no UV 100 0***

***Control with UVB (30 mJ/cm<sup>2</sup>) 49 100***

***UVB +Extract 0.001% 73 11***

***[0097] The results of these tests demonstrate that an inventive extract of the plant Argania spinosa the effect of UVB radiation on the reduced number of keratinocytes. There is a reduction of the levels of LDH released in the cytoplasm shows. The above extracts show, therefore, the ability to reduce the UVB radiation-induced damage to cell membranes and show an inhibitory effect against inflammation that are induced by UVB radiation.***

***8th For example, inhibition of elastase activity.***

***[0098] Serine proteases such as elastase, collagenase, or cause the degradation of elastin, proteoglycans and collagen and thus cause a weakening of the connective tissue. In the following test, the inhibitory properties of the extracts against pancreatic elastase into two systems, namely once studied in a synthetic chromogenic substrate for other A and B in a natural substrate (elastin / Congo red). The amount of the extracts was 0.3 wt -%, incubation for 30 min (20 ° C). The inhibition was monitored photometrically at 410 and 520 nm, as a standard (= 0%***

*inhibition) was used alpha 1-antitrypsin. The results are summarized in Table 5.*

*Id = Table 5 Columns = 3*

*Elastase inhibition [%-absolute]*

*Head Col 1:*

*Head Col 2: Substrate A*

*Head Col 3: Substrate B*

*alpha 1-Antitrypsin IC50 = 0.01% IC50 = 0.034%*

*Extract of Example 1 51% 18%*

*Extract of Example 2 57% 66%*

*Extract of Example 3 100% 6%*

*[0099] The biochemical testing of a collagenase inhibition was achieved with a collagenase from Clostridium histolyticum in a chromogenic synthetic substrate C: FALGPA (furylacryloyl-Leu-Gly-Pro-Ala), a specific substrate for collagenase, which is not hydrolyzed by the enzyme. In terms of this substrate was from SIGMA.*

*[0100] The amount of the extracts was 0.3 wt -%, incubation time 30 min (20 ° C). The inhibition was investigated by determining the optical density OD.*

*Id = Table 6 Columns = 2*

*Collagenase Inhibition [%-absolute]*

*Head Col 1:*

**Head Col 2: Substrate C**

**Cysteine IC50 = 1.56%**

**Extract of Example 1 76%**

**Extract of Example 2 100%**

**[0101] The extracts from the leaves of *Argania spinosa* show high activity in inhibiting proteases elastase and collagenase.**

**9thExample: The melanogenesis**

**[0102] Background: The skin-lightening activity was examined with an Inhibition of tyrosinase and melanin synthesis inhibition assay on B16 melanocytes. The tyrosinase is the key enzyme in the synthesis of melanin in the melanocytes of human skin. This enzyme catalyzes the first two stages of the conversion of tyrosine into melanin, ie, the oxidation of tyrosine to L-DOPA (dihydroxyphenylalanine) and then to dopachrome.**

**[0103] Method: 1 Tyrosinase inhibition: L-DOPA and tyrosinase was mixed with the tested extract. The optical density of dopachrome has been studied nm at 475th Then examined the kinetics and the concentration for a 50 -% inhibition (EC50) determined.**

**[0104] 2Inhibition of Melanogenesis on B16 melanocytes: The B16 melanocytes in a defined medium (DMEM with 10% fetal calf serum) and cultured for 3 days at 37 ° C and 5% CO2. The growth medium was replaced by the defined medium without calf serum which contained a certain portion of the test extracts. After another 3-day incubation, the proportion of intact cells by the content of cellular proteins by the method of Bradford was determined (Anal. Biochem.72, 248-254, 1976) and the proportion of formed melanin druch investigation of the optical density at**

**475 nm by the method described by Ando et al beschrieien. 17  
IFSCC Congress - Yokohama, 2.909 to 918.1992.**

**[0105] The reference substance was hydroquinone.**

**[0106] The results were calculated as the ratio of activity index in  
proportion to protein content of melanin: the higher the index,  
the higher the inhibition activity and the lower the stimulation of  
melanogenesis.**

**Id = Table 7 Columns = 4**

**Influence of melanogenesis**

**Head Col 1:**

**Head Col 2: tyrosinase in tubo**

**Head Col 3 to 4: melanin synthesis**

**Subhead Col 1:**

**Subhead Col 2:**

**Subhead Col 3: Concentration (wt-%)**

**Subhead Col 4: Index**

**Hydroquinone EC50 = 0.025% 0.0003 2.21**

**Extract of Example 3 EC50 = 0.077% 0.01 0.4**

**[0107] The results showed extracts from Example 3 for a  
stimulation of melanin synthesis. Hence, the use of this extract  
is as pigmenting agents.**



**10th Example formulations of cosmetic products with proteins  
from extracts of the plant Argania spinosa**

**[0108] The examples 1 to 3 according to extracts obtained were the following inventive recipes K1 to K21 and 1 to 40 used. The cosmetic products thus manufactured were compared to the same recipes V1, V2 and V3 excellent skin care properties together with good skin compatibility. Furthermore, the inventive agent stable against oxidative decomposition.**

**[0109] All in the Table 8-11 and listed substances used in registered trademarks TM are trademarks and products of Cognis Group.**

**Id = Table 8: Columns = 9**

**Soft cream formulations K1 to K7**

**Head Col 1 to 9 AL = L: (All values in wt-% Based on the cosmetic products)**

**INCI designation K1 K2 K3 K4 K5 K6 K7 V1**

**Glyceryl Stearate (and) Cetearth-12/20 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0**

**(And) Cetearyl Alcohol (and) Cetyl**

**Palmitate**

**Cetearyl Alcohol 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0**

**Dicaprylyl ether 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0**

**Cocoglycerides 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0**

**Cetearyl Isononanoate 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0**

**Glycerin (86 wt-% Ig) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0**

***Extract of Example 1-3 0.5 0.5 0.5 0.5 0.5 0.5 0.5 -***

***Tocopherol 0.5***

***Allantoin 0.2***

***Bisabolol 0.5***

***Chitosan (Hydagen CMF) 10.0***

***Deoxyribonucleic acid <1)> 0.5***

***Panthenol 0.5***

***Water Ad 100***

***Id = Table 9 Columns = 9***

***Night cream recipes K8 to K14***

***Head Col 1 to 9 AL = L: (All values in wt-% Based on the cosmetic products)***

***Subhead Col 1: INCI designation***

***Subhead Col 2: K8***

***Subhead Col 3: K9***

***Subhead Col 4: K10***

***Subhead Col 5: K11***

***Subhead Col 6: K12***

***Subhead Col 7: K13***

***Subhead Col 8: K14***

***Subhead Col 9: V2***

***Polyglyceryl-2 Dipolyhydroxystearate 4.0 4.0 4.0 4.0 4.0 4.0 4.0 5.0***

***Polyglyceryl-3 Diisostearate 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0***

***Cera Alba 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0***

***Zinc Stearate 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0***

***Cocoglycerides 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0***

***Cetaeryl Isononanoate 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0***

***Dicaprylyl ether 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0***

***Magnesium Sulfate 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0***

***Glycerin (86 wt-% Ig) 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0***

***Extract of Example 1-3 0.5 0.5 0.5 0.5 0.5 0.5 0.5 -***

***Tocopherol 0.5***

***Allantoin 0.2***

***Bisabolol 0.5***

***Chitosan (Hydagen CMF) 10.0***

***Deoxyribonucleic acid <1)> 0.5***

***Panthenol 0.5***

***Water Ad 100***

***Id = Table 10 Columns = 9***

***W / O Body lotion recipes K15 to K21***

**Head Col 1 to 9 AL = L: (All values in wt-% Based on the cosmetic products)**

**Subhead Col 1: INCI name**

**Subhead Col 2: K15**

**Subhead Col 3: K16**

**Subhead Col 4: K17**

**Subhead Col 5: K18**

**Subhead Col 6: K19**

**Subhead Col 7: K20**

**Subhead Col 8: K21**

**Subhead Col 9: V3**

**PEG-7 Hydrogenated Castor Oil 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0**

**Decyl Oleate 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0**

**Cetearylisononanoate 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0**

**Glycerin (86 wt-% lg) 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0**

**MgSO4 \* 7 H2O 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0**

**Extract of Example 1-3 1.5 1.5 1.5 1.5 1.5 1.5 1.5 -**

**Tocopherol 0.5**

**Allantoin 0.2**

**Bisabolol 0.5**

**Chitosan (Hydagen CMF) 10.0**

**Desoxyribonucleinsäure <>**

1)

0.5

**Panthenol 0.5**

**Water Ad 100**

**<1> deoxyribonucleic acid: Molekuargewicht about 70000, purity (as determined by spectro-photometric measurement of absorbance at 260 nm and 280 nm) at least 1.7.**

**Id = Table 11 Columns = 11**

**Recipes**

**Head Col 1 to 11 AL = L: (All values in wt -%, based on the cosmetic product, water, preservatives added to 100 weight-%)**

**Subhead Col 1 to 11 AL = L: Cosmetic preparations**

**Subhead Col 1: Composition (INCI)**

**Subhead Col 2: 1**

**Subhead Col 3: 2**

**Subhead Col 4: 3**

**Subhead Col 5: 4**

**Subhead Col 6: 5**

**Subhead Col 7: 6**

**Subhead Col 8: 7**

**Subhead Col 9: 8**

**Subhead Col 10: 9**

**Subhead Col 11: 10**

**TM Texapon NSO**

**Sodium laureth sulfate - - - - - 38.0 38.0 25.0 -**

**Texapon TM SB 3**

**Disodium Laureth Sulfosuccinate - - - - - 10.0 -**

**Plantacare TM 818**

**Coco Glucosides - - - - - 7.0 7.0 6.0 -**

**Plantacare TM PS 10**

**Sodium Laureth Sulfate (and) Coco Glucosides - - - - - 16.0**

**Dehyton TM PK 45**

**Cocamidopropyl Betaine - - - - - 10.0 -**

**A Dehyquart TM**

**Cetrimonium Chloride 2.0 2.0 2.0 2.0 4.0 4.0 - - - -**

**Dehyquart L TM 80**

**Dicocoylemethylethoxymonium methosulfate (and) propylene glycol 1.2 1.2 1.2 1.2 0.6 0.6 - - - -**

**Eumulgin TM B2**

**Ceteareth-20 0.8 0.8 - 0.8 - 1.0 - - - -**

**Eumulgin TM VL 75**

**Lauryl Glucoside (and) polyglyceryl-2 polyhydroxystearate (and) Glycerin - - 0.8 - 0th8 - - - - -**

**Lanette ® O**

**Cetearyl Alcohol 2.5 2.5 2.5 2.5 3.0 2.5 - - - -**

**Cutina GMS TM**

**Glyceryl Stearate 0.5 0.5 0.5 0.5 0.5 1.0 - - - -**

**TM Cetiol HE**

**PEG-7 Glyceryl Cocoate 1.0 - - - - - 1.0**

**Cetiol TM PGL**

**Hexyldecanol (and) Hexyldecyl Laurate - 1.0 - - 1.0 - - - - -**

**Cetiol TM V**

**Decyl Oleate - - - 1.0 - - - - -**

**Eutanol TM G**

**Octyldodecanol - - 1.0 - - 1.0 - - - - -**

**Nutrilan TM Keratin W**

**Hydrolyzed keratin - - - 2.0 - - - - -**

**Lamesoft TM LMG**

**Glyceryl Laurate (and) Potassium Cocoyl Hydrolyzed Collagen -  
- - - - - 3.0 2.0 4.0 -**

**Euperlan TM PK 3000 AM**

**GlycolDistearate (and) Laureth-4 (and) Cocamidopropyl Betaine -  
- - - - - 3.0 5.0 5.0**

**Generol TM 122 N**

**Soya Sterol - - - - 1.0 1.0 - - - -**

**Extract of Example 1-3 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0**

**Hydagen TM CMF**

**Chitosan 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0**

**Copherol TM 12 250**

**Tocopherol Acetate - - 0.1 0.1 - - - - -**

**Arlypon TM F**

**Laureth-2 - - - - - 3.0 3.0 1.0 -**

**Sodium Chloride - - - - - 1.5 - 1.5**

**(1-4), Conditioner, (5-6), Conditioner, (7-8) shower, (9) Shower  
Gel (10) body wash**

**Id = Table 11 Columns = 11**

**(Fonsetzung)**

**Head Col 1 to 11 AL = L: Cosmetic preparations - Continued**

**Subhead Col 1: Composition (INCI)**

**Subhead Col 2: 11**

**Subhead Col 3: 12**

**Subhead Col 4: 13**

**Subhead Col 5: 14**

**Subhead Col 6: 15**

**Subhead Col 7: 16**

**Subhead Col 8: 17**

**Subhead Col 9: 18**



**Subhead Col 10: 19**

**Subhead Col 11: 20**

**TM Texapon NSO**

**Sodium laureth sulfate 20.0 20.0 12.4 - 25.0 11.0 - - - -**

**Texapon ® K 14 S**

**Sodium Sulfate Myreth - - - - - 11.0 23.0**

**Texapon TM SB 3**

**Disodium Laureth Sulfosuccinate - - - - - 7.0 - - - -**

**Plantacare TM 818**

**Coco Glucosides 5.0 5.0 4.0 - - - - - 6.0 4.0**

**Plantacare TM 2000**

**Decyl Glucoside - - - - - 5.0 4.0 - - - -**

**Plantacare TM PS 10**

**Sodium Laureth Sulfate (and) Coco Glucosides - - - 40.0 - - 16.0  
17.0 - -**

**Dehyton TM PK 45**

**Cocamidopropyl Betaine 20.0 20.0 - - 8.0 - - - - 7.0**

**Eumulgin TM B1**

**Ceteareth-12 - - - - - 1.0 - - - - -**

**Eumulgin TM B2**

**Ceteareth-20 - - - 1.0 - - - - -**

**Lameform TM TGI**

**Isostearate, polyglyceryl-3 - - - 4.0 - - - - -**

**Dehymuls TM PGPH**

**Polyglyceryl-2 Dipolyhydroxystearate - - 1.0 - - - - -**

**Monomuls TM 90-L 12**

**Glyceryl Laurate - - - - - 1.0 1.0**

**TM Cetiol HE**

**PEG-7 Glyceryl Cocoate - 0.2 - - - - -**

**Eutanol TM G**

**Octyldodecanol - - - 3.0 - - - - -**

**Nutrilan TM Keratin W**

**Hydrolyzed keratin - - - - - 2.0 2.0**

**Nutrilan TM I**

**Hydrolyzed Collagen 1.0 - - - - 2.0 - 2.0 - -**

**Lamesoft TM LMG**

**Glyceryl Laurate (and) Potassium Cocoyl Hydrolyzed Collagen -  
- - - - - 1.0 -**

**Lamesoft TM 156**

**Hydrogenated Tallow Glyceride (and) Potassium Cocoyl  
Hydrolyzed Collagen - - - - - 5.0**

**Gluadin TM WK**

**Sodium CocoylHydrotyzed Wheat Protein 1.0 1.5 4.0 1.0 3.0 1.0  
2.0 2.0 2.0 -**

**Euperlan TM PK 3000 AM**

**Glycol Distearate (and) Laureth-4 (and) Cocamidopropyl Betaine  
5.0 3.0 4.0 - - - 3.0 3.0 -**

**Panthenol - - 1.0 - - - - -**

**Arlypon TM F**

**Laureth-2 2.6 1.6 - 1.0 1.5 - - - -**

**Extract of Example 1-3 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0**

**Hydagen TM CMF**

**Chitosan 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0**

**Sodium Chloride - - - - 1.6 2.0 2.2 - 3.0**

**Glycerin (86 wt-% lg) - 5.0 - - - - 1.0 3.0 -**

**(11-14), shower room, two-in-One), (15-20) Shampoo**

**Id = Table 11 Columns = 11**

**(Continued)**

**Head Col 1 to 11 AL = L: Cosmetic preparations - continuation 2**

**Subhead Col 1: Composition (INCI)**

**Subhead Col 2: 21**

**Subhead Col 3: 22**

**Subhead Col 4: 23**

**Subhead Col 5: 24**

**Subhead Col 6: 25**

**Subhead Col 7: 26**

**Subhead Col 8: 27**

**Subhead Col 9: 28**

**Subhead Col 10: 29**

**Subhead Col 11: 30**

**TM Texapon NSO**

**Sodium laureth sulfate - 30.0 30.0 - 25.0 - - - - -**

**Plantacare TM 818**

**Coco Glucosides - 10.0 - - 20.0 - - - - -**

**Plantacare TM PS 10**

**Sodium Laureth Sulfate (and) Coco Glucosides 22.0 - 5.0 22.0 - -  
- - - - -**

**Dehyton TM PK 45**

**Cocamidopropyl Betaine 15.0 10.0 15.0 15.0 20.0 - - - - -**

**Emulgade TM SE**

**Glyceryl Sterate (and) Ceteareth 12/20 (and) Cetearyl Alcohol  
(and) Cetyl Palmitate - - - - - 5.0 5.0 4.0 - -**

**Eumulgin TM B1**

**Ceteareth-12 - - - - - 1.0 - -**

**Lameform TM TGI**

**Isostearate, polyglyceryl-3 - - - - - 4.0 -**

**Dehymuls TM PGPH**

**Polyglyceryl-2 Dipolyhydroxystearate - - - - - 4.0**

**Monomuls TM 90-O 18**

**Glyceryl Oleate - - - - - 2.0 -**

**TM Cetiol HE**

**PEG-7 Glyceryl Cocoate 2.0 - - 2.0 5.0 - - - - 2.0**

**TM Cetiol OE**

**Dicaprylyl ether - - - - - 5.0 6.0**

**Cetiol TM PGL**

**Hexyldecanol (and)Hexyldecyl Laurate - - - - - 3.0 10.0 9.0**

**Cetiol TM SN**

**Cetearyl Isononanoate - - - - 3.0 3.0 - - -**

**Cetiol TM V**

**Decyl Oleate - - - - 3.0 3.0 - - -**

**Myritol TM 318**

**Coco caprylate caprate - - - - - 3.0 5.0 5.0**

**Bees Wax - - - - - 7.0 5.0**

**Nutrilan TM Elastin E20**

**Hydrolyzed Elastin - - - - 2.0 - - - -**

**Nutrilan TM I-50**

**Hydrolyzed Collagen - - - - 2.0 - 2.0 - - -**

**Gluadin TM AGP**

**Hydrolyzed Wheat Gluten 0.5 0.5 0.5 - - - - 0.5 - -**

**Gluadin TM WK**

**Sodium Cocoyl Hydrolyzed Wheat Protein 2.0 2.0 2.0 2.0 5.0 - - -  
0.5 0.5**

**Euperlan TM PK3000 AM**

**Glycol Distearate (and) Laureth-4 (and) Cocamidopropyl Betaine  
5.0 - - 5.0 - - - - -**

**Arlypon TM F**

**Laureth-2 - - - - -**

**Extract of Example 1-3 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0**

**Hydagen TM CMF**

**Chitosan 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0**

**Magnesium Sulfate Hepta Hydrate - - - - - 1.0 1.0**

**Glycerin (86 wt-% Ig) - - - - 3.0 3.0 5.0 5.0 3.0**

**(21-25) bubble (26), soft cream, (27, 28) moisturizing emulsion,  
(29, 30) Night Cream**

**Id = Table 11 Columns = 11**

**(Continued)**

**Head Col 1 to 11 AL = L: Cosmetic preparations - continued 3**

**Subhead Col 1: Composition (INCI)**

**Subhead Col 2: 31**

**Subhead Col 3: 32**

**Subhead Col 4: 33**

**Subhead Col 5: 34**

**Subhead Col 6: 35**

**Subhead Col 7: 36**

**Subhead Col 8: 37**

**Subhead Col 9: 38**

**Subhead Col 10: 39**

**Subhead Col 11: 40**

**Dehymuls TM PGPH**

**Polyglyceryl-2 Dipolyhydroxystearate 4.0 3.0 - 5.0 - - - - -**

**Lameform TM TGI**

**Polyglyceryl-3 Diisostearate 2.0 1.0 - - - - -**

**Emulgade TM PL 68/50**

**Cetearyl Glucoside (and) Cetearyl Alcohol - - - - 4.0 - - - 3.0 -**

**Eumulgin TM B2**

**Ceteareth-20 - - - - - 2.0 - -**

**Tegocare TM PS**

**Polyglyceryl-3 Methyl Glucose Distearate - - 3.0 - - - 4.0 - - -**

**Eumulgin VL 75**

**Polyglyceryl-2 Dipolyhydroxystearate (and) Lauryl Glucoside  
(and) Glycerin - - - - - 3.5 - - 2.5 -**

**Bees Wax 3.0 2.0 5.0 2.0 - - - - -**

**Cutina GMS TM**

**Glyceryl Stearate - - - - - 2.0 4.0 - - 4.0**

**Lanette ® O**

**Cetearyl Alcohol - - 2.0 - 2.0 4.0 2.0 4.0 4.0 1.0**

**Antaron <sup>TM</sup> V 216**

**PVP / hexadecene copolymer - - - - - 3.0 - - - 2.0**

**Myritol TM 818**

**Cocoglycerides 5.0 - 10.0 - 8.0 6.0 6.0 - 5.0 5.0**

**Finsolv TM TN**

**C12/15 alkylBenzoate - 6.0 - 2.0 - - 3.0 - - 2.0**

**Cetiol TM J 600**

**Oleyl Erucate 7.0 4.0 3.0 5.0 4.0 3.0 3.0 - 5.0 4.0**

**TM Cetiol OE**

**Dicaprylyl ether 3.0 - 6.0 8.0 6.0 5.0 4.0 3.0 4.0 6.0**

**Mineral Oil - 4.0 - 4.0 - 2.0 - 1.0 - -**

**Cetiol TM PGL**

**Hexadecanol (and) Hexyldecyl Laurate - 7.0 3.0 7.0 4.0 - - - 1.0 -**

**Panthenol / bisabolol 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2**

**Extract of Example 1-3 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0**

**Hydagen TM CMF**

**Chitosan 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0**

**Copherol TM F 1300**

**Tocopherol / Tocopheryl Acetate 0.5 1.0 1.0 2.0 1.0 1.0 1.0 2.0 0.5  
2.0**

**Neo Heliopan ® Hydro**

**Sodium Sulfonate Phenylbenzimidazole 3.0 - - 3.0 - - 2.0 - 2.0 -**

**Neo Heliopan ® 303**

**Octocrylene - 5.0 - - - 4.0 5.0 - - 10.0**

**Neo Heliopan ® BB**

**Benzophenone-3 1.5 - - 2.0 1.5 - - - 2.0 -**



**Neo Heliopan ® E 1000**

**Isoamyl p-Methoxycinnamate 5.0 - 4.0 - 2.0 2.0 4.0 10.0 - -**

**Neo Heliopan ® AV**

**Octyl Methoxycinnamate 4.0 - 4.0 3.0 2.0 3.0 4.0 - 10.0 2.0**

**Uvinul ® T 150**

**Octyltriazone 2.0 4.0 3.0 1.0 1.0 1.0 4.0 3.0 3.0 3.0**

**Zinc Oxide - 6.0 6.0 - 4.0 - - - 5.0**

**Titanium Dioxide - - - - - 5.0 - -**

**Glycerin (86 wt-% lg) 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0**

**(31) W / O Sun Protection Cream (32-34) W / O Sunscreen Lotion,  
(35, 38, 40) O / W-Sonnenschuttdotion (36, 37, 39) O / W sun  
protection cream**

## **Claims**

**1st Cosmetic and / or dermo-pharmaceutical preparations containing extracts from the leaves of the plant *Argania spinosa* as care agents for skin and hair.**

**2nd Preparations according to claim 1, wherein the extracts contain flavone.**

**3<sup>rd</sup> Preparations according to claim 1 and / or 2, characterized in that they contain flavone derivatives, which are selected from the group formed by myricetin, quercetin, Gossypetin, kaempferol, and luteolin-glycoside.**

**4th Preparations according to claims 1 to 3, characterized in that it extracts in the amounts of 0.01 to 25 wt- Include% calculated as dry weight, relative to the preparation, with the proviso that the quantities of water and optionally other auxiliaries and additives to make 100 weight - add%.**

**5th Use of extracts from the leaves of the plant *Argania spinosa* as care agents for skin and / or hair.**

**6th Use of extracts from the leaves of the plant *Argania spinosa* as a sunscreen, especially against UVA radiation and / or UVB radiation.**

**7th Use of extracts from the leaves of the plant *Argania spinosa* as an antioxidant.**

**8th Use of extracts from the leaves of the plant *Argania spinosa* as anti-inflammatory agents.**

**9th Use of extracts from the leaves of the plant *Argania spinosa* as antimicrobial agents.**

**10th Use of extracts from the leaves of the plant *Argania spinosa* against skin aging**

***11th Use of extracts from the leaves of the plant Argania spinosa as protease-inhibiting agent, particularly as collagenase and / or elastase-inhibiting agent.***

***12th Use of extracts from the leaves of the plant Argania spinosa as pigmenting agents.***